OPORDER. Fathometers were monitored continuously during survey operations and the phase checked frequently at the 50-foot calibration mark. The fathogram initial was maintained at zero. Blanking was usually kept at 3 feet.

Fathograms were scanned and the analog record compared to digitized depths. Digitizer errors, missed depths, and peak/deep insertions were identified and corrected according to the fathogram. Changes were entered on the edited master tape or via the electronic corrector tape, and noted on the raw data printout and fathogram. Lead lines were used for soundings along pier faces.

Soundings on the final field sheet have been corrected for transducer draft, velocity of sound and predicted tides. Bar checks were made prior to each day's data acquisition, and (time and weather permitting) at the conclusion of each day. Corrections for settlement and squat were applied to the final field sheet depths. Settlement and squat tests were conducted on 12 May 1982 in the Bay of Pillars, Alaska.

Five velocity casts were conducted with the Grundy portable sound velocity sensor to determine velocity correctors. Velocity corrections applied to soundings on the final field sheet were determined from a mean of the observations. Additional information concerning reduction of field soundings is contained in the appended Corrections to Echo Soundings Report.

Predicted tides for H-10038 were obtained from published daily predictions for Cordova, AK. Predicted tides were corrected to UTC and applied at 0.2 foot intervals for boat-sheets, preliminary, and final field sheet plotting. Tidal conditions recorded at the Cordova tide station should be applied to smooth sheet depths.

E. HYDROGRAPHIC SHEETS

Field sheets were prepared at 1:10,000 scale using the DAVIDSON's PDP 8/e, Complot plotter, and standard NOS software. All field records were submitted to PMC Processing Division for verification and smooth plotting.

Blowups of the near-shore portion of H-10038 were prepared at 1:1,000 scale for clarity. Shoreline features were scaled from 1:10,000 T-sheets and are provided for orientation only.

Mylar overlays were used for plotting channel lines to relieve congestion and to facilitate interpretations of
Predicted tides based on the Cordova, Alaska (945-4050) gage were utilized during shipboard processing. Tide correctors used for the reduction of final soundings reflect the approved hourly heights from the same gage.

The Electronic Control correctors were revised during verification to reflect the appropriate baseline correctors for station pairs. Corrections to the table are annotated in black.

Projection parameters used to plot the field sheets have been changed to meet smooth sheet specifications and center the hydrography.

2. CONTROL AND SHORELINE

Geodetic positions for control stations used to compute the survey are published and preliminary adjusted positions referenced to the North American 1927 datum.

The following revision prints of registered shoreline manuscripts (1:10,000) provide topographic information.

<table>
<thead>
<tr>
<th>Blueprint</th>
<th>T-Sheet</th>
<th>Photography/Field Edit</th>
<th>Revision Photography</th>
</tr>
</thead>
<tbody>
<tr>
<td>118505</td>
<td>12651</td>
<td>Aug '64/Sep '65 - May '66</td>
<td>July '81</td>
</tr>
<tr>
<td>118506</td>
<td>12652</td>
<td>Aug '64-Jul '66/Sep '65-May '66</td>
<td>July '81</td>
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<tr>
<td>118507</td>
<td>12653</td>
<td>Aug '64-Jul '66/Sep '65-May '66</td>
<td>July-August '81</td>
</tr>
<tr>
<td>1:10,000</td>
<td>Enlargement</td>
<td>Aug '64-May '65/June '65</td>
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<td>118512</td>
<td>12807</td>
<td>Aug '64-May '65/June '65</td>
<td>July-August '81</td>
</tr>
</tbody>
</table>

The shoreline south and west of latitude 60°33'00"N, longitude 145°50'30"W has been dashed in red to indicate the approximate high water line delimited by detached positions. Shoreline in the vicinity of Cordova has also been inked in red to indicate changes to two breakwaters which occurred subsequent to the revision photography.

The high water line on the eastern side of Mud Bay at latitude 60°33'11"N, longitude 148°49'55"W is shown on the smooth sheet in dashed red, per the statement in item 16, Addendum to Section L, of the Descriptive Report.

3. HYDROGRAPHY

Soundings at line crossings are in good agreement. Discrepancies exist in areas where the slope of the bottom cannot adequately be portrayed at the scale of the survey.

The bottom configuration, development of shoal soundings, determination of least depths, and delineation of standard depth curves are adequate. The three-foot supplemental curve was added for further delineation. Where the slope precluded showing all depth curves, an effort was made to follow standard cartographic convention showing the shoalest and deepest curves.